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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,314

11/25/2003

Stephen Paul Belair

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09/25/2007

THE LAW OFFICE OF KIRK D. WILLIAMS

PO BOX 61538

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EXAMINER

ZHE, MENG YAO

ART UNIT

PAPER NUMBER

2195

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DELIVERY MODE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/722,314

Applicant(s)

BELAIR ET AL.

Examiner

MengYao Zhe

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2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/25/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/18/06, 1/13/06, 1/3/05</u>                                  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-19 are presented for examination.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8-15 and 17-19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- i) Claims 8-15 and 17-19 are rejected under 35 U.S.C. 101 because the claimed invention are directed to system claim, but appearing to be comprised of software alone without claiming associated computer hardware required for execution. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

<[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)>

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following claim languages are unclear and indefinite:

i) Claim 1, line 4, it is unclear as to what is triggering the act of "sending a multicast dispatch message..." <i.e. is it in response to the event received in line 2?>.

line 5, it is not clearly indicated if "a gang" refers to "the gang" in line 2 <i.e. if they are the same, "the" or "said" should be used>.

Furthermore, it is unclear what a gang priority level is and what it is for <i.e. if all the members are in that gang already, are they not at the same priority level already?>.

line 8, it is unclear how "a process associated with..." is selected to raise its priority <i.e. are there multiple processes in each member? If so, which process is selected? How is it determined as to which process to select to raise its priority? Only raise the priority of a process of the members in the gang?>

line 10, it is not clearly understood what is included in "the plurality of members" and how "the plurality of members" is related to "a plurality of other members" in line 3 <i.e. are they the same set of members? Does the plurality of members include the first member?>.

lines 10-11, it is unclear what the relationship is between "an operation" and "a process" in line 8 <i.e. are they the same process performed in response to the event?>. Furthermore, it is not clearly indicated what is included in the multicast dispatch message in line 5, and how the plurality of members know what operation to performed <i.e. other than priority level, does the multicast dispatch message contain a task or operation to be performed in response to the event of line 2?>

Claims 8 and 12 have the same deficiencies as claim 1 above.

ii) Claim 4, it is uncertain what "routing updates" are <i.e. what is it updating, how the members are routed? What does this have to do with the even and the operation mentioned in claim 1?>

Claim 17 has the same deficiencies as claim 4 above.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boudnik et al., Patent No. 7,207,040 (Boudnik) in view of Sikdar, Patent No. 6,724,729 (hereafter Sikdar).

8. As per claims 1 and 12, Boudnik et al teaches the invention substantially as claimed including a method for gang scheduling, the method comprising:

- a first member of a gang recognizing an event (Column 2, lines 14-16, lines 52-53), the gang including the first member and a plurality of other members (Column 8, lines 57-61; Fig 2, units 202A-202n)

- the first member sending messages to the plurality of other members for controlling members in a distributed system (Fig 6; Column 2, lines 31-59; Column 8, lines 18-26);

- the plurality of other members receiving the messages;

- each particular member of the plurality of other members raising a priority level of a process associated with said each particular member to that corresponding to the gang priority level (Column 2, lines 42-47);

- said each particular member of the plurality of members performing an operation associated with the multicast dispatch message at the gang priority level (Column 2, lines 46-47).

Boudnik does not teach a first member sending a multicast dispatch message to the plurality of other members;

However, Sikdar teaches a first member sending a multicast dispatch message to the plurality of other members (Column 1, lines 63-66; Column 9, lines 62-64) for the purpose of synchronizing a distributed system;

9. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to combine the teachings of Boudnik, where a first member the gang has to send a plurality of change of priority containing messages to a plurality of other members, with a first member sending a multicast dispatch message to the plurality of other members, because it allows synchronization in a distributed system.

10. As per claims 2 and 13, Boudnik teaches wherein said performing the operation by said each particular member includes generating one or more results (Column 2, lines 46-47; Column 11, lines 51-54);

Sikdar teaches comprising said each particular member communicating said one or more results to the first member (Fig 6 and Column 16, lines 65-Column 17, line 1).

11. As per claims 3 and 14, Sikdar teaches wherein said operation includes collecting one or more statistics values and said one or more results includes said one or more statistics values (Column 16, lines 65-Column 17, line 1).

12. As per claims 4 and 17, Sikdar teaches wherein the multicast dispatch message includes a set of routing updates, and said operation includes updating a data structure with the set of routing updates (Column 10, lines 5-10).

13. As per claims 5 and 18, Sikdar does not specifically teach wherein the multicast dispatch message includes a fault indication, and said operation includes updating configuration or routing information in response to the fault indication. However, because the analysis instrument system disclosed by Sikdar is used for testing purposes, which can be used as part of error or fault analysis, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to include in the test message a fault indication so that the analyzer knows what to test for, measure and characterize (Column 1, lines 9-30).

14. As per claims 6 and 19, it is rejected with similar reasoning as claim 5 and moreover, the operation of providing responses to the appropriate control unit corresponds to the operation is a corrective measure associated with the fault (Sikdar, Column 16, lines 65-Column 17, line 1).

15. As per claims 7 and 15, although Boudnik in view of Sikdar does not teach raising the priority level of the first member to the gang priority level before said sending the multicast dispatch message. However, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to raise the priority of the first member who is responsible for sending the broadcast message so that the task of sending the message may be performed earlier if not first in respect to other less



important tasks such that the rest of the analyzer in the system may all be synchronized to perform their tasks.

16. As per claim 8, it is rejected under Boudnik in view of Sikdar with the same reasoning as claim 1. Moreover Sikdar teaches the additional limitation of means for maintaining gang membership of a scheduling gang, said gang membership including a plurality of other gang members (Fig 1: analyzer and the control unit are all part of the gang; Column 1, lines 60-Column 2, lines 10: it is inherent the system knows what analyzer is part of the system since it can send messages to analyzers selectively.)

17. As per claim 9, Sikdar teaches wherein said means for dispatching and communicating gang dispatch messages includes means for performing reliable group communication (Column 1, lines 60-Column 2, lines 10; Fig 6 and Column 16, lines 65-Column 17, line 1).

18. As per claim 10, Sikdar teaches wherein said means for reliable group communication includes means for acknowledging less than all of a series of gang dispatch messages (Column 4, lines 55-65: time-stamps corresponds to acknowledging.).

19. As per claim 11, Sikdar teaches wherein said means for reliable group communication includes means for performing immediate and delayed

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acknowledgement of received gang dispatch messages (Column 4, lines 55-65; Column 5, lines 9-14).

20. As per claim 16, Sikdar teaches wherein each of the plurality of other members of the gang are included on different line cards of a packet switching system (Column 7, lines 28-54).

### ***Conclusion***

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached at 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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